

S
Control
Salmon ✓
Insect

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OCT 28 1958
TIMBER MANAGEMENT

INTERMOUNTAIN FOREST AND RANGE EXPERIMENT STATION
FOREST SERVICE, U. S. DEPARTMENT OF AGRICULTURE

Ogden, Utah
Roed W. Bailey, Director

Action	Initial
Moncrief	<i>WM</i>
Frykmen	<i>WM</i>
Grosbeck	<i>WM</i>
Chapman	<i>WM</i>
Morgan	<i>WM</i>
Lowe	<i>WM</i>
Hartman	<i>WM</i>
Melvin	<i>WM</i>
Payne	<i>WM</i>
TM Clerk	

Salmon National Forest
Annual Aerial Survey
August 1958

By

W. E. Cole - W. E. Mineau
Entomologists

7 copies sent Salmon with memo
of 10/28/58

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Prepared by

Division of Forest Insect Research
Boise Research Center
Boise, Idaho

TM FILE COPY

SALMON NATIONAL FOREST

ANNUAL AERIAL SURVEY

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Entomologists

INTRODUCTION

The annual aerial survey of the Salmon National Forest was conducted in the same manner as in previous years, i. e., flights were made to cover all forested areas by drainages. The purpose of the examination was to detect evidence of unusual forest insect activity.

Where aerial observations indicated abnormal conditions further checks were made on the ground whenever possible. When formal ground appraisal surveys were required such was done and are reported separately.

Three degrees of intensity of damage, light, medium, and heavy, were used on the aerial work with defoliators that destroy the current year's needles. However, with defoliators such as pine butterfly, old-growth needles are destroyed, detection is based on observing the adults in flight. Thus, a ground appraisal survey is required.

In the case of most bark beetles, the aerial detection reveals only the damage of the previous year's attacks and not the new infestations. In some cases there may be fading of foliage during the season of attacks. Generally, ground work is required to determine the current status of bark beetle infestations.

FOREST RESUME'

The 1958 aerial survey revealed a slight localized increase in numbers of lodgepole pine trees attacked by mountain pine beetle and a new infestation of pine butterfly affecting some 52,000 acres of ponderosa pine. This latter infestation appears to have resulted in rather light defoliation this year. A ground appraisal survey of egg deposition and damage is in progress.

1/ Forest aid-research

The spruce budworm infestation of Douglas-fir and true fir has not increased in area. In spite of the fact that new areas of light defoliation have cropped up, refinement of boundaries of the older infestations has resulted in no increase in acreage. In general the older infestations, 2 to 3 years old, have remained at a medium to heavy level of defoliation. The 388,500 acres infested by budworm includes approximately 222,000 acres that have become reinfested since the 1956 spruce budworm control project in these areas.

The area of Douglas-fir affected by the spruce mite has increased in size. The area west of Salmon, Idaho was not observed this year, but the area around and north of Ulysses has increased to 10,500 acres. Although the spruce mite can be found throughout the Lemhi district at a very low level, only the areas of more intense damage were mapped.

Losses due to barkbeetles other than mountain pine beetle remain at an endemic level representing the normal expected mortality in these stands.

RESULTS BY DISTRICTS

The observed infestations are keyed by ranger district and described as follows:

Yellowjacket District (D-1). This district contains the most recent budworm infestation of any size. This infestation increased approximately 30,000 acres during the past year, thus 130,200 acres are affected. However, only light defoliation was recorded on these 30,000 acres of new infestation. The older infestations remain at a medium to heavy level of defoliation.

Losses due to bark beetles in general remained at an endemic level.

North Fork District (D-2). A new outbreak of the pine butterfly in ponderosa pine was observed in this district. Approximately 52,000 acres are infested from Carmen Creek to Gibbons Pass, although the damage is not serious as yet. Lesser numbers of adult butterflies were observed in Hull and Hughes Creeks.

Approximately 100,000 acres of Douglas-fir and true fir are infested with budworm in the area which was sprayed in 1956. In 1957 noticeable reinfestation and heavy defoliation was recorded. This situation continued in 1958.

The main body of the increased spider mite infestation on Douglas-fir lies within D-2. Areas of damage were found in the head of Hull and Hughes Creeks, totalling approximately 10,500 acres.

The Douglas-fir beetle infestation in Hull Creek is extremely light. While some damage was noted, it was quite sporadic. In general, bark beetles appear to be at a low level.

Indianola District (D-3). This district contains 122,000 acres of budworm damage because of reinfestation following the 1956 spray project. The defoliation is rated as medium to heavy.

An area of spider mite damage to Douglas-fir was first found in 1957 on Ulysses Mountain and has extended to the northeast and is reported under D-2.

Bark beetles in general appeared at a slightly increased level of activity, but still may be considered at an endemic stage. The Douglas-fir beetle appeared increasing in Dump and Moose Creeks.

Adult pine butterflies on ponderosa pine were observed in endemic numbers in Colson and Spring Creeks and around Dutchlor Mountain.

Lomhi District (D-4). Light budworm defoliation is beginning to appear in several drainages on this district. These are areas of new infestation totalling approximately 36,300 acres.

Western pine beetle in ponderosa pine appears to be increasing in numbers, still fairly scattered and no "grouping up" was noted. However, 200-300 lodgepole pine trees infested with mountain pine beetle were observed in Bull Creek with smaller infestations in Hawley, Baby Joo, and Rough Canyon.

Salmon District (D-5). Quite a scattering increase of lodgepole pine trees infested with mountain pine beetles was noted throughout the drainages as shown on the map. No other unusual insect activity was observed on D-5.

SUMMARY OF INSECT DAMAGE

<u>District</u>	<u>Insect</u>	Approximate damage	
		<u>Trees killed</u>	<u>Acres defoliated</u>
Yellowjacket (D-1)	Budworm	---	130,200
	Douglas-fir beetle	Endemic	---
North Fork (D-2)	Budworm	---	100,000
	Pine butterfly	---	52,000
	Spider mite	---	10,500
	Mtn. pine beetle (Lpp)	Endemic	---
	Fir engravers	Endemic	---
Indianola (D-3)	Budworm	---	122,000
	Douglas-fir beetle	Increasing	---
	Western pine beetle	Static	---
	Fir engravers	Static	---
Lemhi (D-4)	Budworm	---	36,300
	Douglas-fir beetle	Endemic	---
	Mtn. pine beetle (Lpp)	300	---
	Fir engravers	Static	---
Salmon (D-5)	Mtn. pine beetle (Lpp)	Increasing	---
Forest Total	Budworm	---	388,500
	Pine butterfly	---	52,000
	Spider mite	---	10,500
	Douglas-fir beetle	Localized increase	---
	Mtn. pine beetle (Lpp)	300	---
	Western pine beetle	Static	---
	Fir engravers	Static	---

